



INSTITUTO TECNOLÓGICO SUPERIOR DE VALLADOLID

CARRERA:

**ASEGURAMIENTO DE LA CALIDAD DE
SOFTWARE**

ASIGNATURA:

SISTEMA DE CONTROL DE VERSIONES

DOCENTE:

**I.S.C CARLOS ALEJANDRO CEN
CASTRO**

NOMBRES DE ALUMNOS:

MOO DZUL LUIS REYES

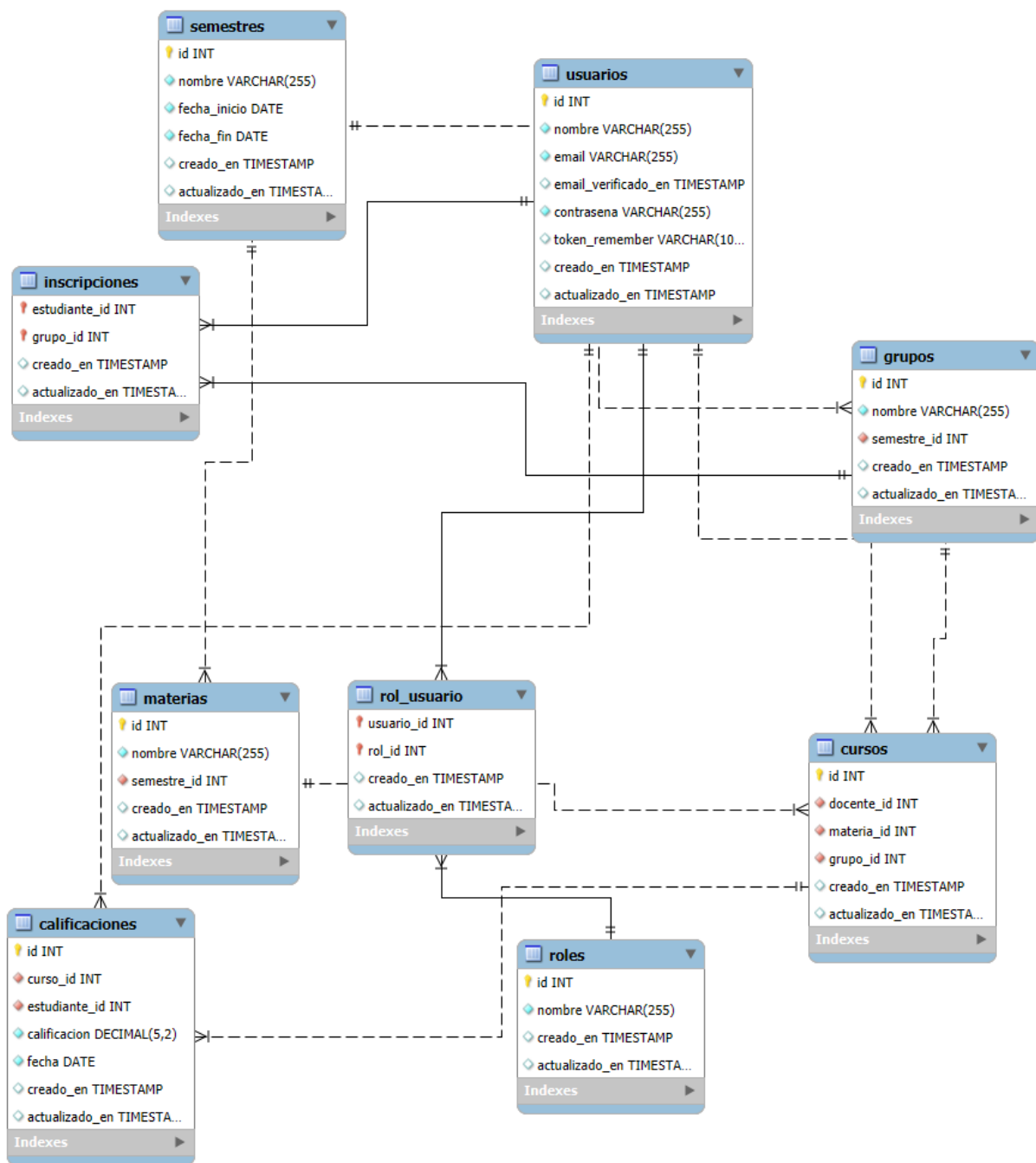
MARTÍN ARCEO YESENIA GUADALUPE

CIAU TUZ SELENA ROCIO

CANCHÉ GOMEZ DIEGO EMANUEL

08/03/2025

DIAGRAMA E-R



SCRIPT SQL

```
Control_Escolar_script x
Limit to 1000 rows

1  -- Base de datos Control Escolar, Fase 1
2  -- Moo Dzul Luis Reyes
3  -- Ciau Tuz Selena Rocío
4  -- Martín Arceo Yesenia Guadalupe
5  -- Canché Gomez Diego Emanuel
6  • CREATE DATABASE IF NOT EXISTS control_escolar;
7  • USE control_escolar;
8
9  -- Tabla roles
10 • CREATE TABLE IF NOT EXISTS roles (
11     id INT PRIMARY KEY AUTO_INCREMENT,
12     nombre VARCHAR(255) NOT NULL UNIQUE,
13     creado_en TIMESTAMP NULL DEFAULT CURRENT_TIMESTAMP,
14     actualizado_en TIMESTAMP NULL DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP
15 );
16
17 -- Insertar roles básicos
18 • INSERT INTO roles (nombre) VALUES
19     ('administrador'),
20     ('coordinador'),
21     ('docente'),
22     ('estudiante');
23
24 -- Tabla usuarios
25 • CREATE TABLE IF NOT EXISTS usuarios (
26     id INT PRIMARY KEY AUTO_INCREMENT,
27     nombre VARCHAR(255) NOT NULL,
28     email VARCHAR(255) NOT NULL UNIQUE,
29     email_verificado_en TIMESTAMP NULL,
30     contrasena VARCHAR(255) NOT NULL,
31     token_remember VARCHAR(100) NULL,
32     creado_en TIMESTAMP NULL DEFAULT CURRENT_TIMESTAMP,
33     actualizado_en TIMESTAMP NULL DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP
34 );
35
36 -- Tabla pivot: usuarios - roles
37 • CREATE TABLE IF NOT EXISTS rol_usuario (
38     usuario_id INT NOT NULL,
39     rol_id INT NOT NULL,
40     creado_en TIMESTAMP NULL DEFAULT CURRENT_TIMESTAMP,
41     actualizado_en TIMESTAMP NULL DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP,
42     PRIMARY KEY (usuario_id, rol_id),
43     FOREIGN KEY (usuario_id) REFERENCES usuarios(id) ON DELETE CASCADE,
44     FOREIGN KEY (rol_id) REFERENCES roles(id) ON DELETE CASCADE
45 );
```

```
47  -- Tabla semestres
48  ● CREATE TABLE IF NOT EXISTS semestres (
49      id INT PRIMARY KEY AUTO_INCREMENT,
50      nombre VARCHAR(255) NOT NULL,
51      fecha_inicio DATE NOT NULL,
52      fecha_fin DATE NOT NULL,
53      creado_en TIMESTAMP NULL DEFAULT CURRENT_TIMESTAMP,
54      actualizado_en TIMESTAMP NULL DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP
55  );
56
57  -- Tabla materias
58  ● CREATE TABLE IF NOT EXISTS materias (
59      id INT PRIMARY KEY AUTO_INCREMENT,
60      nombre VARCHAR(255) NOT NULL,
61      semestre_id INT NOT NULL,
62      creado_en TIMESTAMP NULL DEFAULT CURRENT_TIMESTAMP,
63      actualizado_en TIMESTAMP NULL DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP,
64      FOREIGN KEY (semestre_id) REFERENCES semestres(id) ON DELETE CASCADE
65  );
66
67  -- Tabla grupos
68  ● CREATE TABLE IF NOT EXISTS grupos (
69      id INT PRIMARY KEY AUTO_INCREMENT,
70      nombre VARCHAR(255) NOT NULL,
71      semestre_id INT NOT NULL,
72      creado_en TIMESTAMP NULL DEFAULT CURRENT_TIMESTAMP,
73      actualizado_en TIMESTAMP NULL DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP,
74      FOREIGN KEY (semestre_id) REFERENCES semestres(id) ON DELETE CASCADE
75  );

-- Tabla cursos (asignación de materias y grupos a docentes)
● CREATE TABLE IF NOT EXISTS cursos (
    id INT PRIMARY KEY AUTO_INCREMENT,
    docente_id INT NOT NULL,
    materia_id INT NOT NULL,
    grupo_id INT NOT NULL,
    creado_en TIMESTAMP NULL DEFAULT CURRENT_TIMESTAMP,
    actualizado_en TIMESTAMP NULL DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP,
    FOREIGN KEY (docente_id) REFERENCES usuarios(id) ON DELETE CASCADE,
    FOREIGN KEY (materia_id) REFERENCES materias(id) ON DELETE CASCADE,
    FOREIGN KEY (grupo_id) REFERENCES grupos(id) ON DELETE CASCADE,
    UNIQUE KEY (docente_id, materia_id, grupo_id)
);

-- Tabla de inscripciones (alumnos en grupos)
● CREATE TABLE IF NOT EXISTS inscripciones (
    estudiante_id INT NOT NULL,
    grupo_id INT NOT NULL,
    creado_en TIMESTAMP NULL DEFAULT CURRENT_TIMESTAMP,
    actualizado_en TIMESTAMP NULL DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP,
    PRIMARY KEY (estudiante_id, grupo_id),
    FOREIGN KEY (estudiante_id) REFERENCES usuarios(id) ON DELETE CASCADE,
    FOREIGN KEY (grupo_id) REFERENCES grupos(id) ON DELETE CASCADE
);
```



```
102  -- Tabla de calificaciones
103  ● CREATE TABLE IF NOT EXISTS calificaciones (
104      id INT PRIMARY KEY AUTO_INCREMENT,
105      curso_id INT NOT NULL,
106      estudiante_id INT NOT NULL,
107      calificacion DECIMAL(5,2) NOT NULL,
108      fecha DATE NOT NULL,
109      creado_en TIMESTAMP NULL DEFAULT CURRENT_TIMESTAMP,
110      actualizado_en TIMESTAMP NULL DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP,
111      FOREIGN KEY (curso_id) REFERENCES cursos(id) ON DELETE CASCADE,
112      FOREIGN KEY (estudiante_id) REFERENCES usuarios(id) ON DELETE CASCADE,
113      CHECK (calificacion >= 0 AND calificacion <= 100)
114  );
```